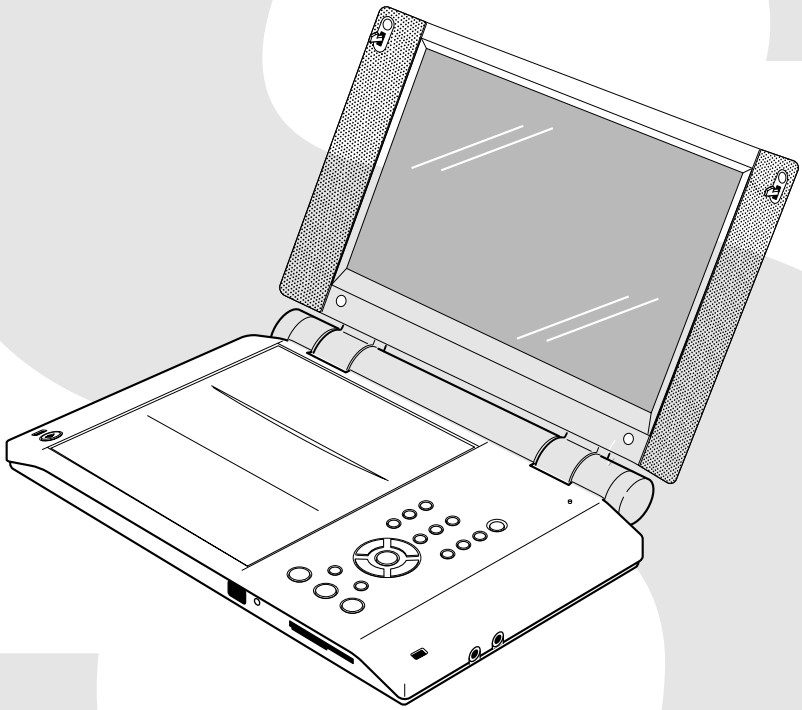
TOSHIBA

FILE NO. 810-200316

SERVICE MANUAL

PORTABLE DVD PLAYER

SD-P2500



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1. Troubleshooting

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2. The initial screen is not displayed on the LCD
3. The DVD drive does not work
4. The operation of the DVD player stops at initializing display
5. Image output stops during the operation
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7. No image or sound comes out from the external output
8. No sound comes out from the headphones
9. No image or sound is output by external input
10. The DVD drive does not operate with the battery
11. The SD card or SmartMedia is not read correctly

1.1 No power when turned on

When the power is turned on, and the front panel does not light green, check the following items and repair the defective parts.

(1) Check the power supply cable

If the cable is not the supplied one, replace it with the supplied cable and turn on the power again.
If the LED does not light after replacing, check the following items.
(If a cable other than the supplied one is used, the AC adapter may be damaged.)

(2) Check the AC adapter

If the AC adapter is not the supplied one, replace it with the supplied AC adapter and turn on the power again.
If the LED does not light after replacing, check the following items.
(If the AC adapter other than the supplied one is used, the power board may be damaged.)

(3) Check the switch buttons

Press the POWER button or the PLAY button on the DVD player. If the power does not turn on, check the following items.

a) Check the connector of the switch in the DVD player.
(If the connection is loose, repair the connection)
b) Replace the cover and turn on the power again.
(If the LED does not light after replacing, check the following items.)

(4) Check the power supply harness (MH95)

Check the connection of the 4-pin harness between the power IF board and the main board.
If the connection is loose, repair the connection. Then turn on the power again.
If the LED does not light after replacing, check the following items.

(5) Replace the power supply IF board

Check the soldered connection for the AC adapter. If a bad or poor solder connection is found, replace the power supply IF board or PJ 801. (The connector, which is on the power board)
If the LED does not light after replacing, check the following items.

(6) Replace the fuse

Replace F801 and F802 on the main board.
If the LED does not light after replacing, check the following items.

(7) Other than the above

Replace the main board.
(Replace the main board, for the trouble could be due to the damage on the main board.)
After replacing the main board, special adjustments in TOSHIBA are required. If not, readout of DVD or CD media might not function properly.

1.2 The initial screen is not displayed on the LCD

If the initial screen is not displayed on the LCD, check the following items.

(1) Check the LED on the front

If the LED does not light, refer to 1.1.

(2) Check the back light

If the back light does not light up, separate the DVD player into the top assembly and bottom assembly, and check the inverter harness MH94 (Check whether or not the connector side is broken.), and check the connectors for defects.

a) If the connector harness is broken :
   Replace the broken harness.
b) If the connector harness is not broken :
   Remove the LCD cover and plate of the LCD unit and check the following.

- If the FL inverter harness is not inserted completely or disconnected, reconnect the harness properly.
- Other than the above:
  Replace the FL inverter or the LCD.

(3) Check the lighting of LCD

If the LCD does not light, separate the DVD player into the top assembly and bottom assembly, and check the LCD harness MH96 (Check whether or not the connector side is broken.), and check the connectors on the main board.

a) If the connector is broken :
   Replace the LCD harness or the main board.
b) If the connector is not broken :
   Remove the LCD cover and plate of the LCD unit and check the following items.
c) Check the connector of the LCD harness connected to the LCD module (check of insertion with slant or others)
   If the LCD harness is not inserted completely or disconnected, reconnect the harness properly.
d) Other than the above:
   Replace the LCD module or the main board.

1.3 The DVD drive does not work

When the DVD drive does not work after the power is turned on, check the following items and repair or replace the defective parts.

(1) Press the DISK cover switch (S102) at the center of the DVD player and turn on the power. Then check whether or not the optical pick-up lens of the DVD drive light.

< CAUTION >
   Visible laser radiation when open and interlock defeated.
   Do not stare into laser beam.

The optical pick-up lens lights dim :
   It is caused by deterioration of the optical pick-up lens. Replace the DVD drive.

The optical pick-up lens does not light :
   Check the connectors of the DVD-FFC. Also check the connection to the main board and to the DVD drive.
   Repair the connections and check the operation of the DVD drive again.

Check whether or not the DVD-FFC is broken.
   (If the DVD-FFC is broken, replace it.)

Other than the above
   Replace the DVD drive or the main board. [Perform pick short of the DVD drive.]

After replacing the DVD drive or the main board, special adjustments in TOSHIBA are required. If not, readout of DVD or CD media might not function properly.

Insert a DVD disk and turn on the power. Check whether or not the DVD drive works.
   The DVD drive does not work.
   Adjust the DVD drive. If the drive does not work after the adjustment, the motor portion of the DVD drive or the main board is defective. Replace it. After replacing the DVD drive or

the main board, special adjustments in TOSHIBA are required. If not, readout of DVD or CD media might not function properly.
After the adjustment, the DVD drive works bur the initial operation of pick-up (two pick-ups) is not performed, or abnormal sound comes out, the DVD drive is defective. Replace the DVD drive. After replacing the DVD drive, special adjustments in TOSHIBA are required. If not, readout of DVD or CD media might not function properly.

1.4 The operation of the DVD player stops at initializing display

If the DVD does not work after the initializing screen is displayed, check the indication on the screen. Then repair the defect according to it.

(1) Insert a DVD disk, and turn on the power. Then check the LCD screen or use an external display.

The message "Loading" is not displayed or the operation stops at the message "Loading".

Since the DVD drive or the main board is defected, replace and check in the following order.
[Perform pick short of the DVD drive.]

1) Replace the DVD drive
2) Replace the main board

After replacing the DVD drive or the main board, special adjustments in TOSHIBA are required. If not, readout of DVD or CD media might not function properly.

The message "PLEASE CHECK DISK" is displayed.

Check the DVD disk for fingerprints, dirt etc.
If the DVD disk has no problem, then check the following items.

1) Check the DVD-FFC
   If connections are loose, repair the connections.
   If the DVD-FFC is damaged, replace it with new one.
2) Other than the above
   For other cases, replace the unit in the following order.
   [Perform pick short of the DVD drive.]
   - Replace the DVD drive (defective optical pick-up)
   - Replace the main board (defective FFC connector)

   After replacing the DVD drive or the main board, special adjustments in TOSHIBA are required. If not, readout of DVD or CD media might not function properly.

1.5 Image output stops during the operation

If the image output from the media in the DVD player stops during operation, replace the DVD drive. [Perform pick short of the DVD drive.]
After replacing the DVD drive, special adjustments in TOSHIBA are required. If not, readout of DVD or CD media might not function properly.

1.6 No sound or abnormal sound comes out from the speakers in the DVD player

If no sound comes out from the speakers in the DVD players, check the following items.

(1) Check for moving images on the LCD screen

Check whether or not the move of image stops in halfway. If it stops, replace the DVD drive.
After replacing the DVD drive, special adjustments in TOSHIBA are required. If not, readout of DVD or CD media might not function properly.

(2) Check the operation of the DVD drive

Check whether or not the DVD drive works. If it stops, replace the DVD drive.
[Perform pick short of the DVD drive.]
After replacing the DVD drive, special adjustments in TOSHIBA are required. If not, readout of DVD or CD media might not function properly.

(3) Check the connection of the speakers in the LCD module

Separate the DVD player into the top assembly and bottom assembly, and then check the

connection of the speaker harness to the main board. If a bad connection, repair the connection.
Other than the above, disassemble the LCD unit and replace the speakers or the main board.
After replacing the main board, special adjustments in TOSHIBA are required. If not, readout of DVD or CD media might not function properly.

1.7 No image or sound comes out from the external output

If any image or sound is output from the TV connected by the external output cable, replace the main board or the connector (PJ701, PJ703, PJ704, PJ705 and PJ709.) When replacing PJ705, cut the connector end on the back of the board within 1mm after soldering.
After replacing the main board, special adjustments in TOSHIBA are required. If not, readout of DVD or CD media might not function properly.
< NOTE > Before this test, make sure the DVD drive works properly.

1.8 No sound comes out from the headphones

If no sound comes out from the headphones, replace the main board or the connector (PJ702, PJ706.)

1.9 No image or sound is output by external input

If any image or sound is output by external input, replace the main board or the connector (PJ709.)

1.10 The DVD drive does not operate with the battery

(1) Check the operation with the verified battery

Install a verified battery and make sure the LED light up orange while the AC adapter is connected. When the LED does not light up or blink, check the connection of the battery connector harnesses inside the DVD player. If the connection is loose, repair the connection. If the harness has been connected firmly, replace the main board.
After replacing the main board, special adjustments in TOSHIBA are required. If not, readout of DVD or CD media might not function properly.

(2) Other than the above, replace the battery

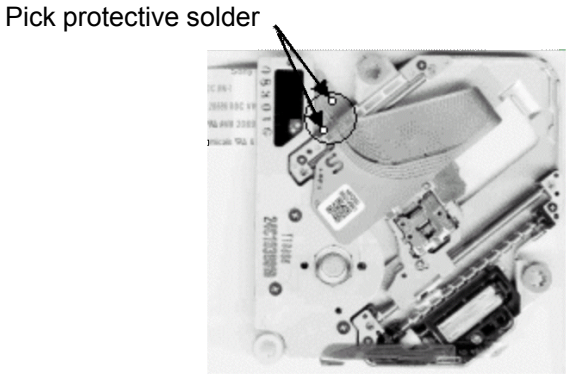
< NOTE >
For this check, use a battery, which is not fully charged (because the LED does not light when the battery is fully charged.)
Before this check, make sure other functions work correctly.

1.11 The SD card or SmartMedia is not read correctly

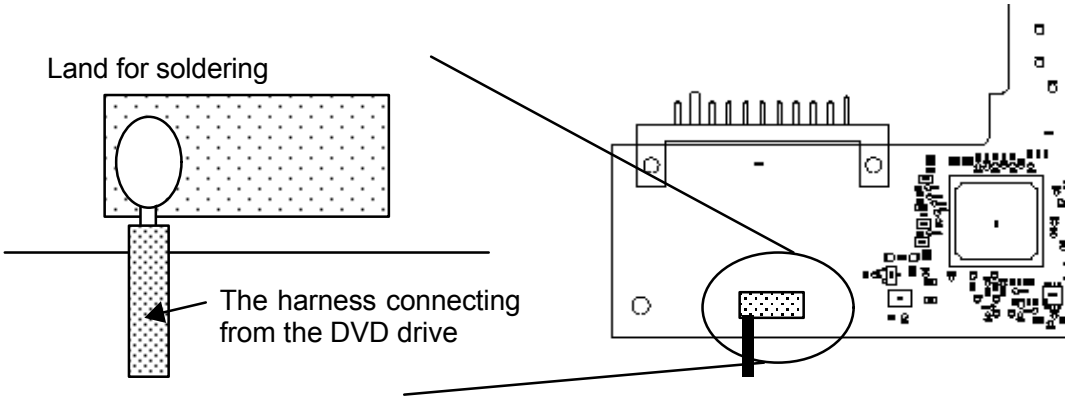
Replace the main board.
After replacing the main board, special adjustments in TOSHIBA are required. If not, readout of DVD or CD media might not function properly.

2. Caution in Replacing Parts

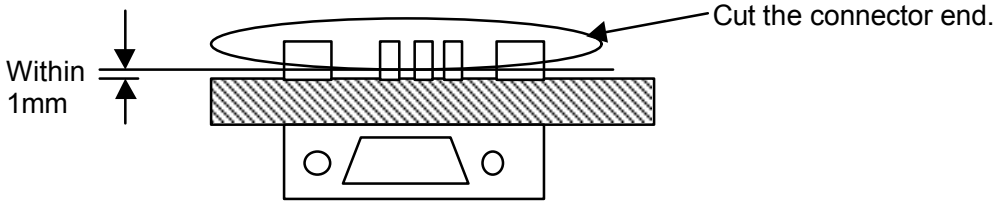
Check whether or not the DVD drive, 42-pin FFC and the main board are connected properly after replacing the DVD drive or the main board. Then, remove the pick protective solder (two points.)
Before replacing the DVD drive or the main board, be sure to solder on the DVD drive to prevent damage by static electricity.



Solder the harness connecting from the DVD drive on the edge of the main board as the figure shown below after replacing the DVD drive or the main board. If not, reassembling can not be performed properly due to interference between parts.



When replacing PJ705, cut the connector end on the back of the board within 1mm after soldering. If not, reassembling can not be performed properly due to interference between parts.



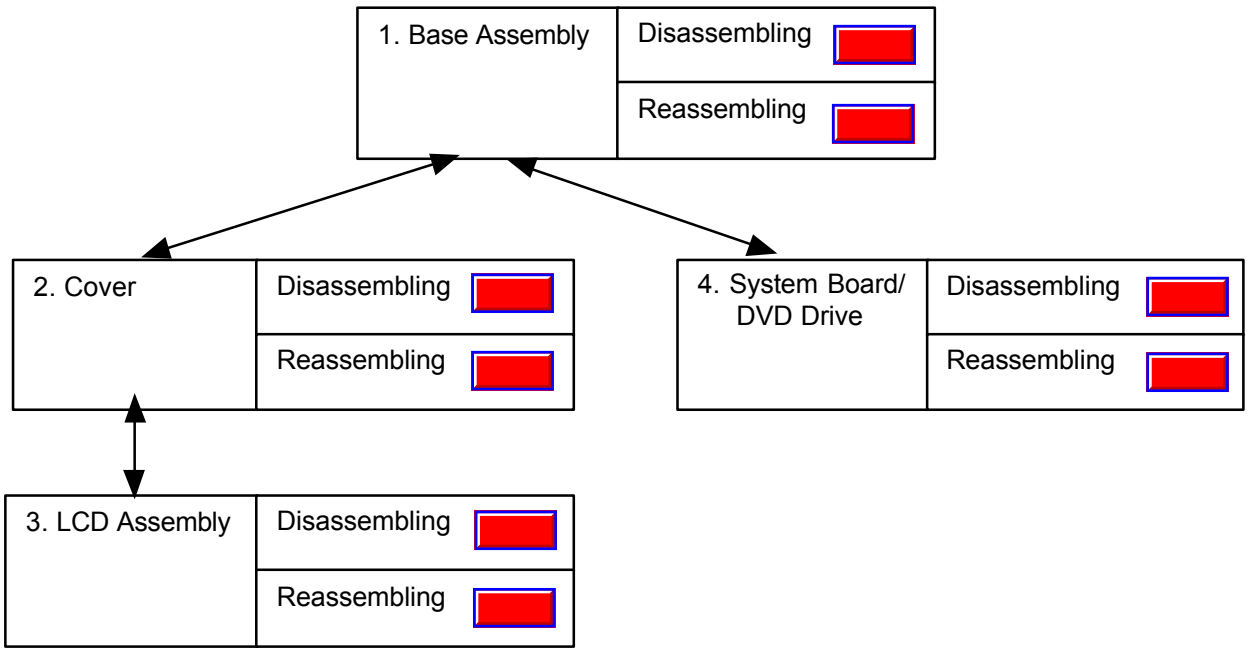
When replacing the label, be sure to fill in the serial number and stick the seal on the label for protection.

3. Disassembling and Reassembling Procedure

This section explains how to disassemble SD-P2500, replace parts and reassemble. It may not be necessary to remove all the parts in order to replace one. The chart below is a guide to which parts need to be removed in order to remove others.
You can see how to disassemble and reassemble by clicking the icon on the chart.
Before disassembling, take proper measures against electric static.

Start with removing the battery or disconnecting the AC adapter.
Please install Apple Quick Time 4 or more.

When you stop the movie halfway, press **Esc** key.



4. Inspection after Disassembling and Reassembling

Note: Be careful not to make any scratches and dirt while you are working.

1. Check the power-on function
   Press the power switch and make sure that the power is turned on.

2. Check the switches
   Press each switch and make sure the switch is functioning properly as described in User's Manual. Check all of the switches. Make sure the switch unit and main board are connected properly. The switch unit might be broken if the cable is inserted with slant or insertion/withdrawal of the cable is repeated.

3. Check the DVD replay (for single-layer disk)
   Replay a DVD disk (single-layer disk) and check the output of sound and headphone. If pick short of the DVD drive is not removed, the DVD disk might not be replayed.

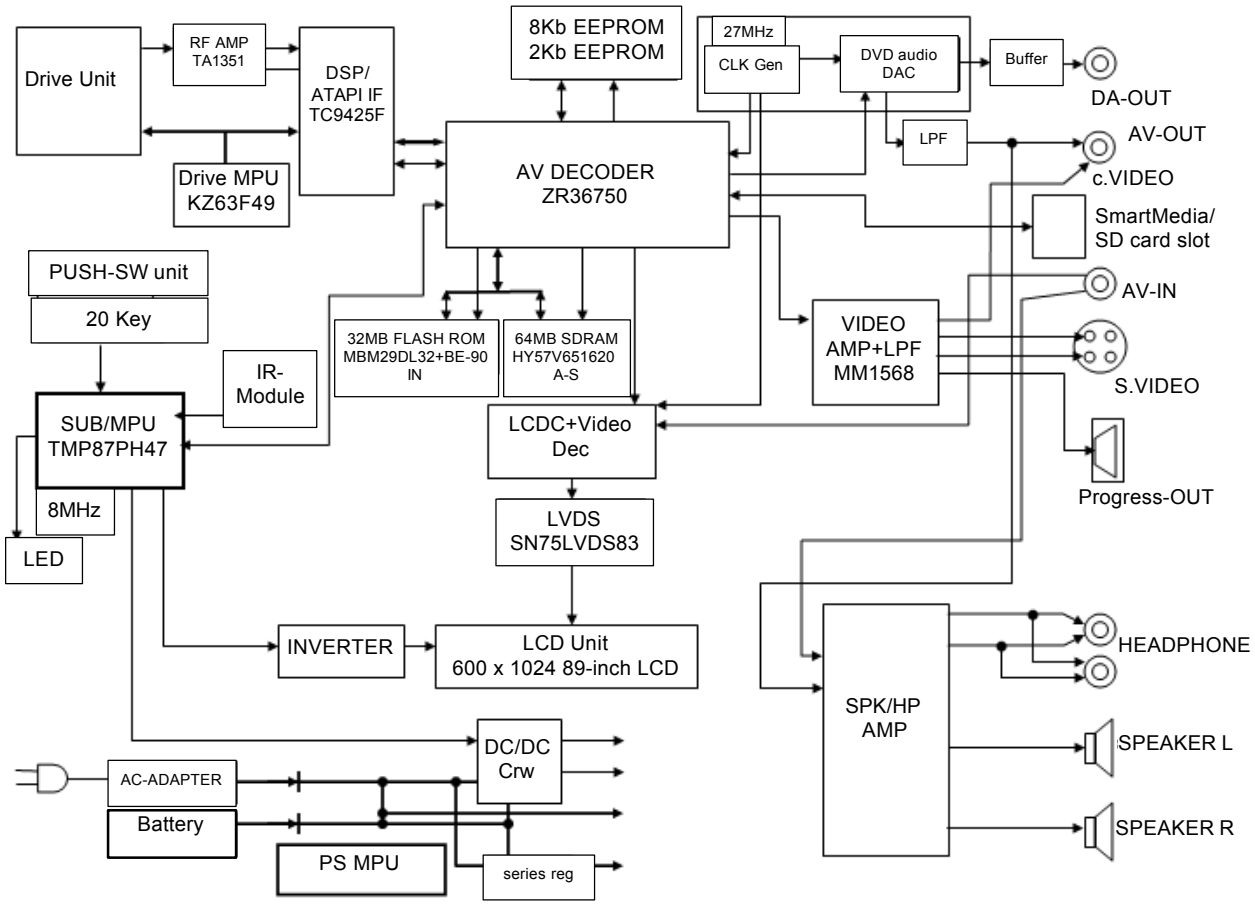
4. Check the DVD replay (for dual-layer disk)
   Replay a DVD disk (dual-layer disk) and check the operation. If the DVD drive or the main board is not adjusted after replacing, the DVD disk might not be replayed.

5. Check the sound of CD-RW
   Play a CD-RW or CD-R and check the sound. If pick short of the DVD drive is not removed, the CD-RW or CD-R might not be played.

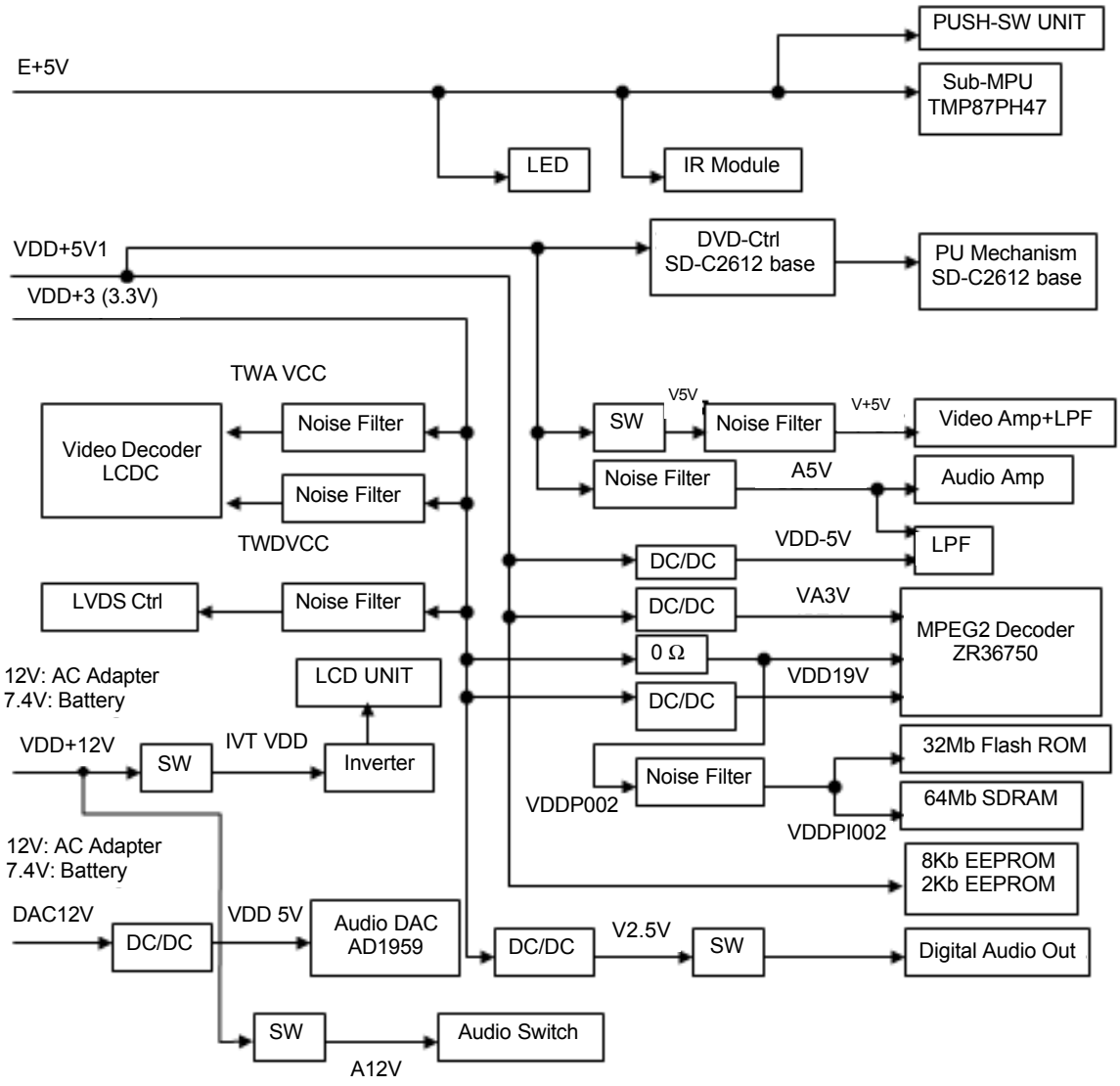
6. Checking the power-off function
   Turn off the SD-P2500.

7. Appearance check
   If you find any dirt or stain, wipe them with soft cloth.

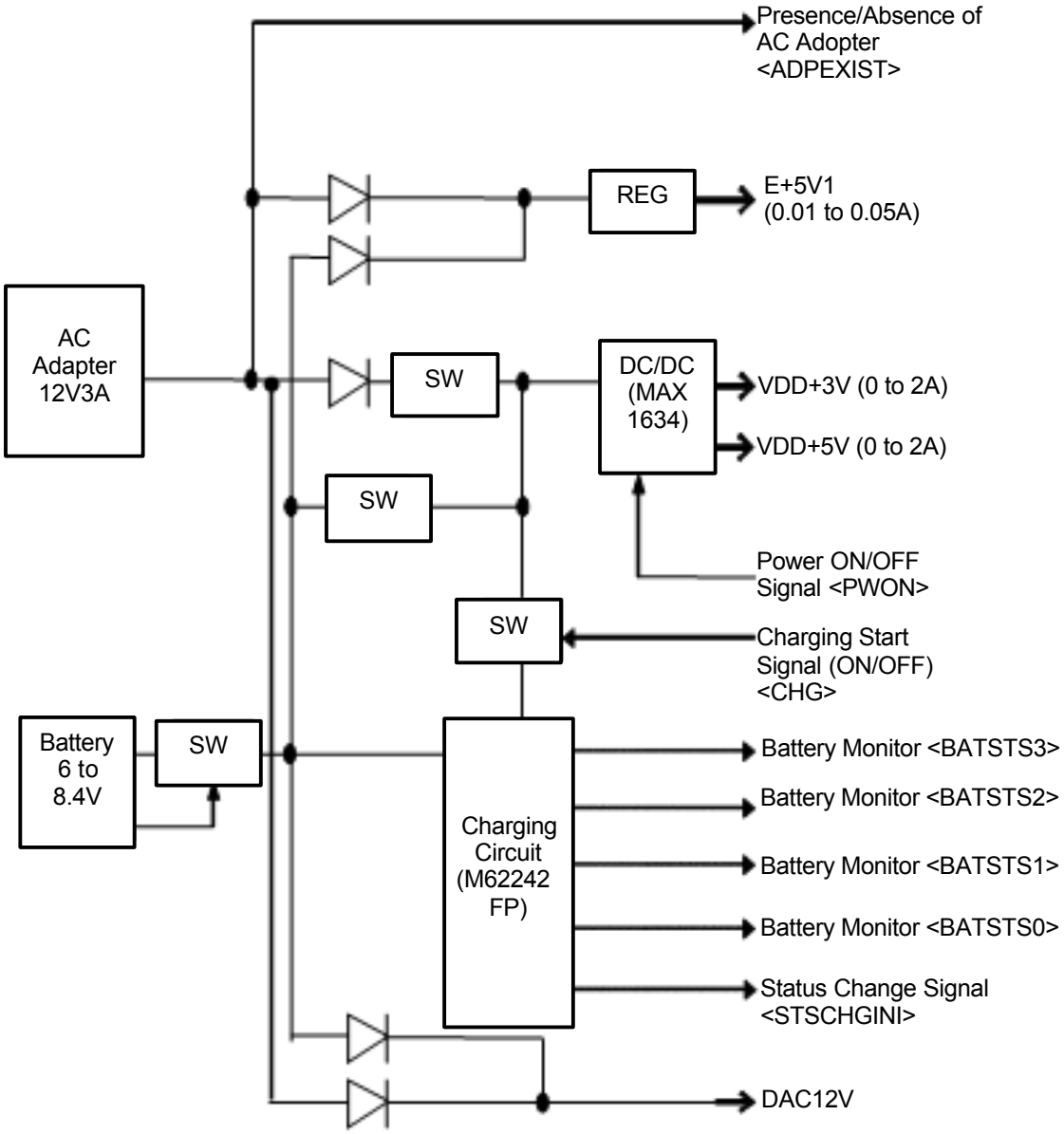
5. BLOCK DIAGRAM



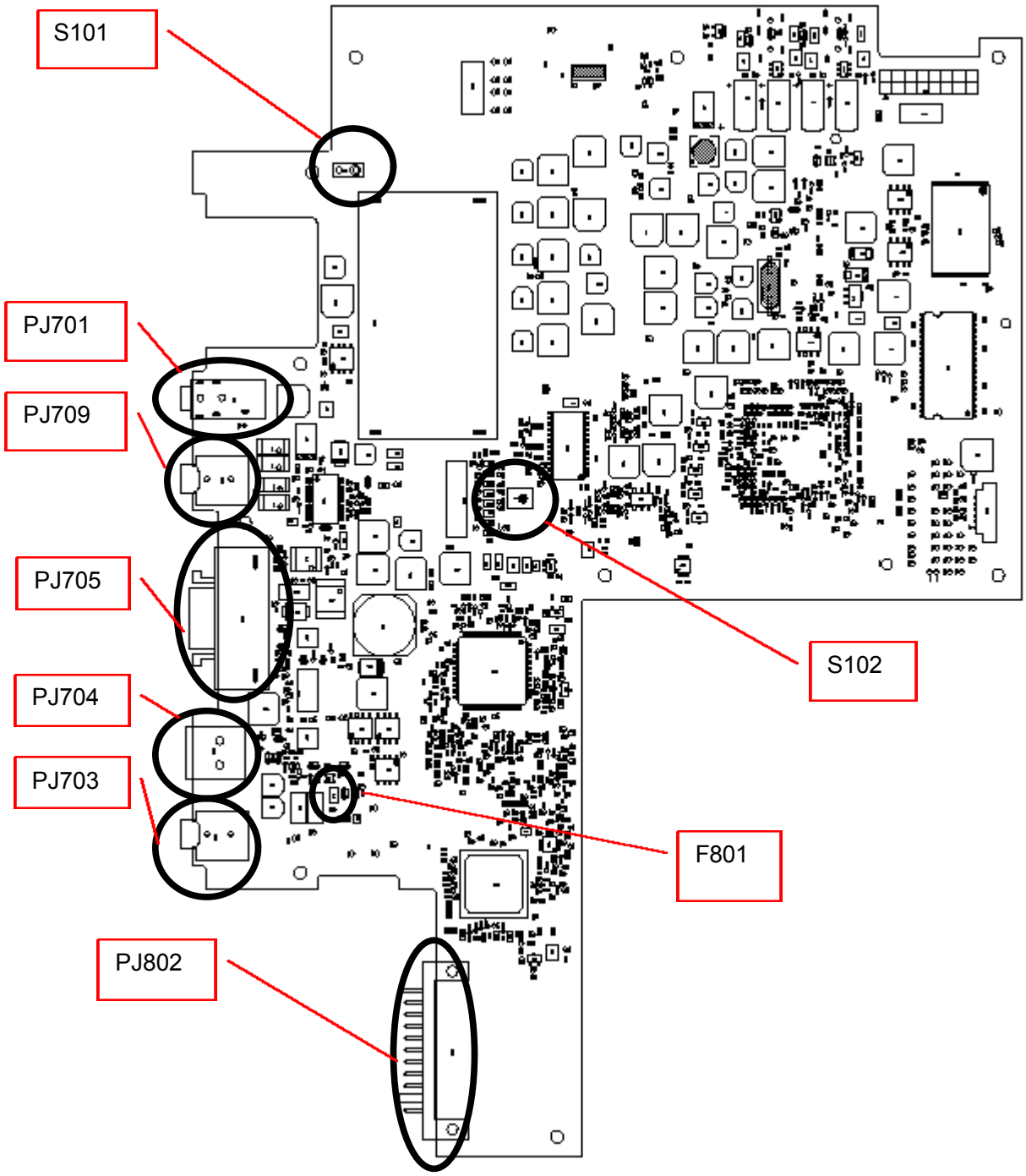
6. POWER SYSTEM DIAGRAMS (1/2)



POWER SYSTEM DIAGRAMS (2/2)

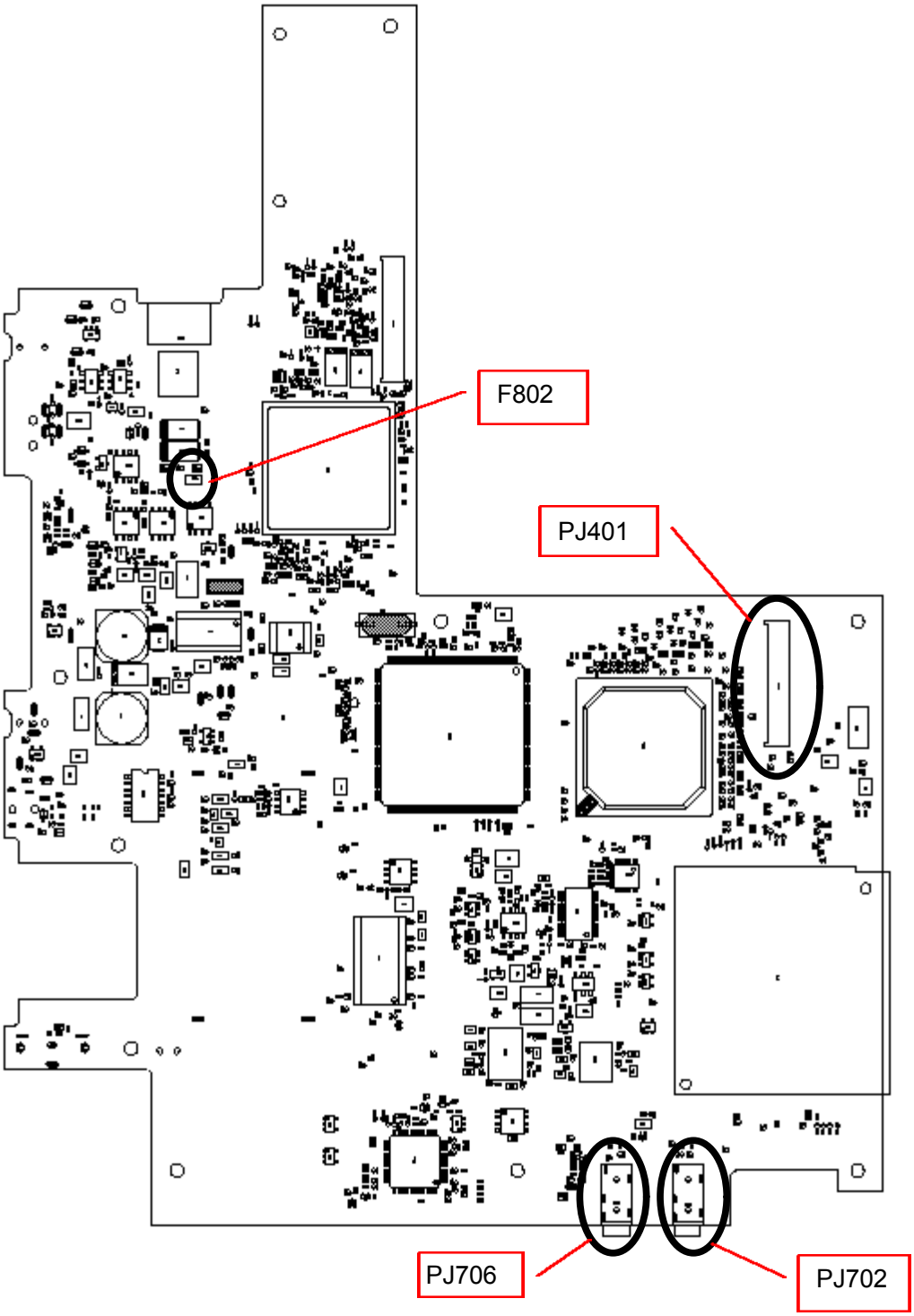


7. PCB (1/2)



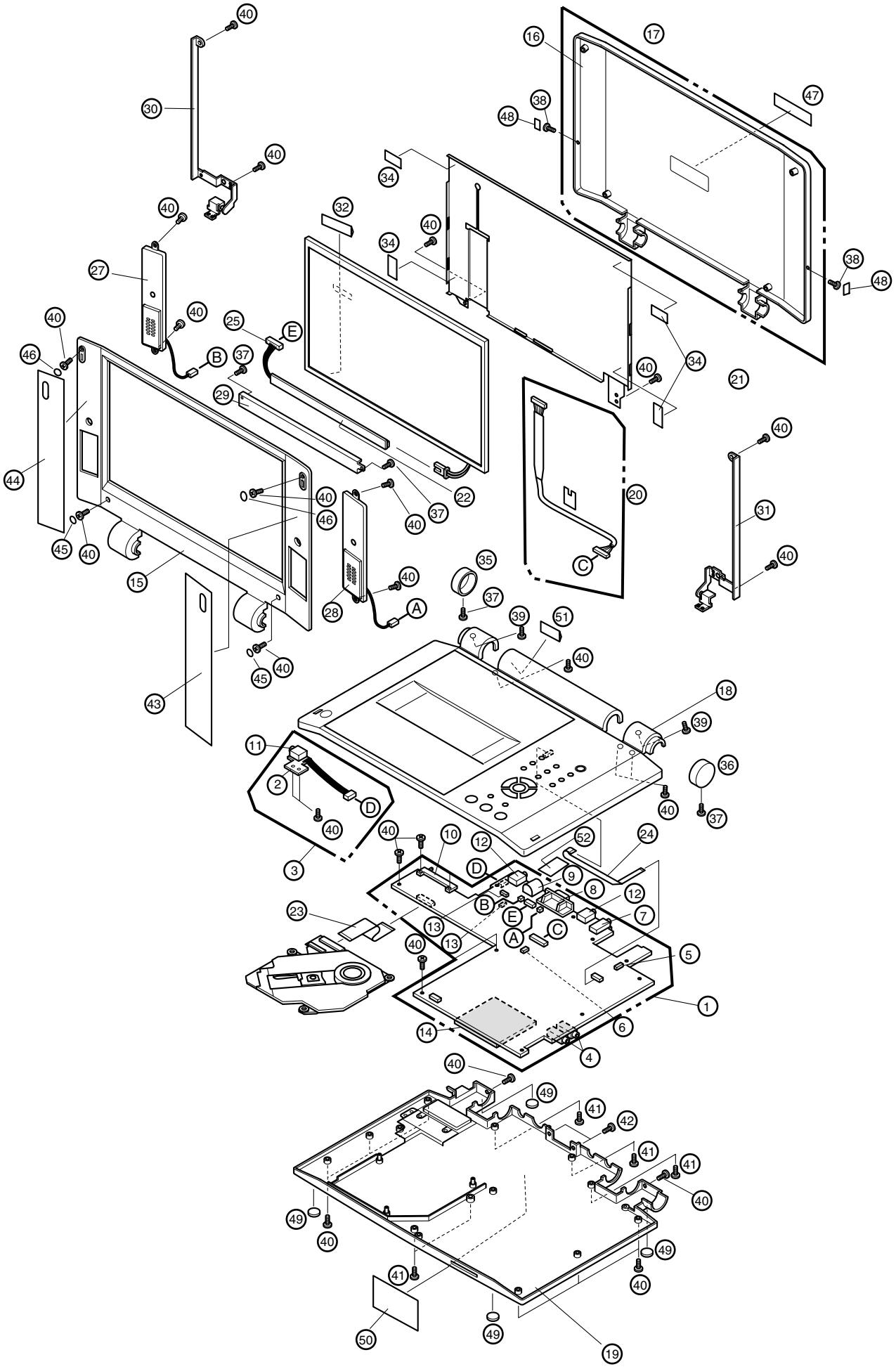
(Front side)

PCB (2/2)



(Back side)

8. CHASSIS ASSEMBLY



9. PARTS LIST

Location No.	TOSHIBA Part No.	Vendor's Part No.	Description
1	AH300300	21195	MAIN-PCB
2	AH300301	S3565	POWER-PCB(MH74)
D	AH300302	S3557	POWER-WIRE(MH95)
4	AH300303	a7314	HEADPHONE JACK
5	AH300304	a7315	PUSH SWITCH(S101)
6	AH300305	P6983	PUSH SWITCH(S102)
7	AH300306	P6997	MINI JACK FIBER
8	AH300307	a7282	BEETLE R/A RECEPTACLE
10	AH300309	P7002	BATTERY CONNECTOR
11	AH300310	a7272	HEC4801 POWER JACK
12	AH300311	a7285	HSJ1594 JACK
13	AH300312	P6996	SMD FUSE
14	AH300313	P6978	SD/SM CONNECTOR
47	AH300320	b20135	TOSHIBA-BADGE
ZF01	AH300374	S06054	REMOTE-CONTROL
ZF10	AH300377	S1598	SD-P2500 USERS MANUAL
ZF11	AH300378	S1598a	SD-P2500 SPANISH MANUAL
ZF20	AH300373	S3468a	AV CABLE
ZF21	AH300375	S3565	D TERMINAL CABLE
ZF22	AH300376	S0580	AC ADAPTER FOR DVD
ZF23	AH300372	S3581	POWER CABLE
	P000346980		LCD Panel
	P000387990		DVD Mechanism

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